

• Preliminary Amendment  
Divisional of USSN 09/381,010  
September 23, 2003  
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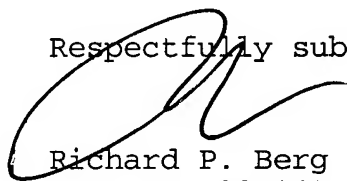
**REMARKS**

Claims 1-25 have been canceled from this application. The Applicants retain the right to present these claims in subsequent amendments to the present application or in subsequent divisional or continuation applications.

The remarks and/or arguments regarding the patentability of new claims 26-32 will be provided in a Supplemental Preliminary Amendment as soon as the application serial number is received from the USPTO. If the arguments have not been submitted by the Applicant when the Examiner takes this application up for examination, please contact the undersigned at the number below.

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 12-0415.

Respectfully submitted,



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**AMENDMENTS TO THE ABSTRACT**

Please replace the original Abstract with the following amended Abstract:

[DECODER SYSTEM]

[ABSTRACT]ABSTRACT

~~An electrode arrangement for an array of electrically controllable elements comprises a series of generally parallel electrodes each for extending along a respective line of the electrically controllable elements, and a series of driver lines for receiving driving signals. Each electrode is connected to a plurality of the driver lines each via a respective impedance. Each electrode is so connected to at least three of the driver lines. Additionally or alternatively, the driver lines are so connected to the electrodes such that the driver lines cannot be split into a pair of arbitrary groups of the driver lines for which (a) each group has generally the same number of driver lines and (b) each electrode is so connected to at least one of the driver lines in one of the groups and to at least one of the driver lines in the other of the groups. This enables the ratio of the number of electrodes to the number of driver lines to be increased. The impedances in combination with a decoder provide a~~ A decoding system which is arranged to perform a plural-stage process in determining which of the driver lines to stimulate in response to each electrode address value supplied to the decoder. This enables the network configuration of the impedances to be machine generated, and also enables the decoder to calculate on the fly which driver lines to stimulate in response to each address value. Furthermore, different resolutions may be provided to enable groups of the electrodes to be addressed simultaneously. Such a decoder arrangement may also be used with an electrode arrangement in which each electrode is connected to only two of the driver lines, in order to achieve addressing schemes in which up to t consecutive electrodes can be driven simultaneously. The invention is applicable, for example, to liquid crystal displays, arrays of memory elements and arrays of sensors such as light-sensors.

~~Figure 7.~~